

ABSTRACT OF THE DISCLOSURE

A method for enabling hexagon grid maps to have variable scale with varying levels of map detail at different map scales is disclosed. The Multi-Level Hex Mapping Method divides hexes of any given size into a number of smaller hexes and defines how the smaller micro-hexes relate to the larger parent hexes. Each different hex size defines a hex level or different scale in the map, thus providing variable scaling to hexagon-based maps. Various mapping attributes may be assigned to selected hexes and micro-hexes, such as terrain data and types. In addition, the method provides a layering mechanism to enable one or more layered attributes, such as tunnels, roadways, buildings, *etc.* to be associated with selected hexes. The method may be implemented either by the use of computer software or traditional hardcopy maps.